

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 01-256101

(43)Date of publication of application : 12.10.1989

(51)Int.Cl.

H01C 7/00

B41J 3/20

(21)Application number : 63-084938

(71)Applicant : SEIKO INSTR INC

(22)Date of filing : 06.04.1988

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(54) THIN FILM TYPE THERMAL HEAD

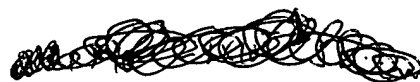
(57)Abstract:

PURPOSE: To realize the high speed operation of a thermal head, and improve the high temperature stability, by making the temperature coefficient of resistance of Ta-SiO₂ as a thin film heater resistor approximate to zero.

CONSTITUTION: The temperature coefficient of resistance TCR of a thin film heating resistor 2 composed of tantalum-silicon oxide (Ta-SiO₂) is made 0 to -500ppm in the resistivity range of 1-100mΩ.cm. As a result, the TCR can be almost equal to zero, by

performing Ta-SiO₂ sputtering, wherein a target whose SiO₂ mol ratio in the target composition ratio is in a range of 30-70%, and argon gas pressure is kept about 10-2Torr. Thereby, the high speed operation of a thermal

head is realized, and the improvement of high temperature stability and durability can be easily attained.



10m Torr
↓

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than

the examiner's decision of rejection or
application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]

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PAT-NO: JP401256101A
DOCUMENT-IDENTIFIER: JP 01256101 A
TITLE: THIN FILM TYPE THERMAL HEAD
PUBN-DATE: October 12, 1989

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APPL-NO: JP63084938
APPL-DATE: April 6, 1988

INT-CL (IPC): H01C007/00, B41J003/20
US-CL-CURRENT: 338/60

ABSTRACT:

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Ta-SiO₂ sputtering,

wherein a target whose SiO₂ mol ratio in the

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